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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/806,603	03/23/2004	Matthew A. Davies	UNCC 02-021	2465
<div><div>7590</div><div>01/29/2008</div><div>J. Steven Gardner Kilpatrick Stockton LLP 1001 West Fourth Street Winston-Salem, NC 27101</div></div>				
			EXAMINER HONG, JOHN C	
			ART UNIT 3726	PAPER NUMBER
			MAIL DATE 01/29/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/806,603

Applicant(s)

DAVIES ET AL.

Examiner

JOHN C. HONG

Art Unit

3726

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 January 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 15, 16, 20-23, 25, 27, 28, 32-34 and 38-45 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 15, 16, 20-23, 25, 27, 28, 32-34, 38-45 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1/14/08 has been entered.

#### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 15,16,21,22,25,27,28,32-34,38,39,40 and 42-45** are rejected under 35

U.S.C. 102(b) as being anticipated by Katz (U.S. Patent 3854184).

Katz discloses : Regarding Claim(s) 15,16, a method of disassembling a preloaded and interlocked assembly comprising: heating a first element

(10) comprising an initial dimension, where the first element is part of an assembly (cylinder 10 and mandrel 13), to a first temperature sufficient to expand the initial dimension to a first dimension, the first dimension greater than the initial dimension; and removing the first element from the assembly wherein the first element can only be removed from the assembly when the first element reaches the first temperature, and wherein heating the first element from the assembly is a means to disassemble the assembly (Figs. 1-5,7; col. 3, lines 39-60; col.4, lines 37-57) ; Regarding Claim(s) 21 and 22, 1<sup>st</sup> element is fashioned from aluminum (Col. 3, line 49);

and further comprises a polymer (col. 1, line 12-13); Claim 25, 1<sup>st</sup> element can only be removed from assembly when the 1<sup>st</sup> element is at the 1<sup>st</sup> temperature 9col. 3, lines 52-55); Regarding Claim(s) 27,28 and 32-34, heating the 1<sup>st</sup> element from the assembly is a means of disassembling the assembly (col. 4, lines 39-43); Regarding Claim(s) 38 and 39, a preliminary step of heating the first element and adding the first element which is heated to a second element so as to create the assembly and cooling the first element is from a first temperature to a third temperature wherein the third temperature is lower than the first temperature and the third temperature is sufficient to contract the first dimension to a lesser third dimension to interlock the assembly (col. 1, lines 18-22); Regarding Claim(s) 40 a method of disassembling a preloaded and interlocked assembly wherein the assembly is comprised of a first element and a second element comprising: heating the first element comprising an initial dimension to a first temperature sufficient to expand the initial dimension to a first dimension, the first dimension greater than the initial dimension wherein the first element and the second element are metals; and removing the first element from the assembly when the first element reaches the first temperature (Figs. 1-5,7; col. 3, lines 39-60; col.4, lines 37-57); Regarding Claim(s) 42, a method of disassembling a preloaded and interlocked assembly comprising: heating a first element comprising an initial diameter, where the first element is part of an assembly, to a first temperature sufficient to expand the initial diameter to a first diameter, the first diameter greater than the initial diameter; and removing the first element from the assembly wherein the first element can be removed from the assembly when the first element reaches the first temperature, and wherein heating the first element to the first temperature when associated with the assembly is a means to disassemble the assembly. Regarding Claim(s) 43-45, a method of creating or disassembling a preloaded and

interlocked assembly wherein the assembly is comprised of a first element and a second element comprising: heating the first element comprising an initial dimension to a first temperature sufficient to expand the initial dimension to a first dimension, the first dimension greater than the initial dimension wherein the first dimension allows removal of the first element from the assembly thereby disassembling the assembly, or coupling of the first element and the second element thereby creating the assembly; and the method is for disassembling the assembly, wherein the method is for creating the assembly (Figs. 1-5,7; col. 3, lines 39-60; col.4, lines 37-57).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 20,23,and 41** are rejected under 35 U.S.C. 103(a) as being unpatentable over Katz (U.S. Patent 3854184).

Katz teach the limitation except the first element is a metal having has a thermal expansion coefficient of between approximately 10 micrometers per degree Celsius per meter and approximately 25 micrometers per degree Celsius per meter, but this is a matter of design choice and it would have been obvious to one of ordinary skill in the art, at the time of the invention to use material of such thermal expansion of coefficient on the method of Katz so as to enable demounting cylinder from the tube more easily.

*Response to Arguments*

Applicant's arguments with respect to claims 15,16,20-23,25,27,28,32-34 and 38-45 have been considered but are moot in view of the new ground(s) of rejection. See the new Office action. Regarding the argument that the Katz does not describe a method to disassemble a preloaded and interlocked assembly and relies solely on frictional forces exerted between the two elements. But whether the frictional forces exerted between the two elements or not is not issue since there are no limitations on the applicant's claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOHN C. HONG whose telephone number is 571-272-4529. The examiner can normally be reached on M-F 9:00-17:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, DAVID BRYANT can be reached on 571-272-4526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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A handwritten signature in black ink, appearing to read 'JCH', is positioned to the left of the printed name.

JOHN C HONG  
Primary Examiner  
Art Unit 3726

Jh  
1/22/08  
5.